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MATERIALS AND PROCESSES IN MANUFACTURING

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Type
Flat
External conical
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Curved irregular

- Chipless
Heat cutting
4. Heat treating
 5. Finishing
 6. Assembly
 7. Inspection

E 1-3. Object composed of seven geo-surfaces.

around specific processes, usually stillation. They primarily are the be considered in this book.

ing of *hardware*, the primary objec- desired configuration, size, and : bounded by various types of sur- arranged relative to each other. ed by producing the surfaces that

alyzed and broken up into these tured by using processes that will : of material so as to produce and ause material to form into a stable ng surfaces. Consequently, in de- ifies the shape, size, and arrange- e designed configuration must be provide the desired properties and ain the required bounding surfaces ive of this book is directed toward

ufacturing processes can be clas-

These types are not completely exclusive. For example, some finishing operations involve a small amount of material removal. However, the material removal is minor, and it is not the purpose of the operation. Similar situations exist relative to some of the other types.

Casting and *molding* involve introducing liquid, granular, or powdered material into a previously prepared mold cavity. Liquid material (usually mol-

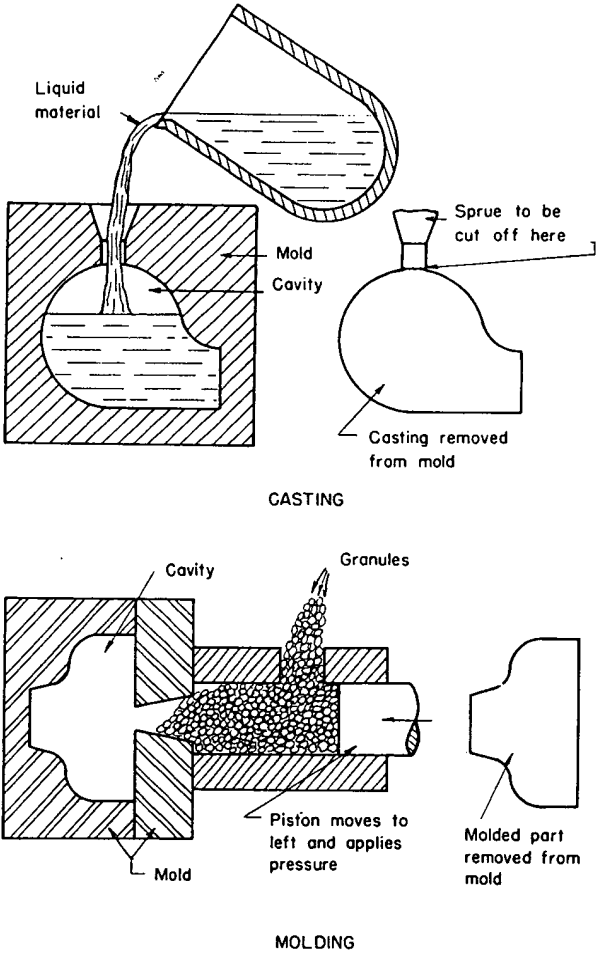


FIGURE 1-4. Casting and molding illustrated.